

WHAT IS CLAIMED IS:

1. A body and environment monitoring system comprising:
at least one bio-sensor associated with a body and configured to
generate sensor-data related to at least one body-parameter;
a first computer in communication with said at least one bio-sensor
and configured to retrieve sensor-data from said at least one bio-sensor;
at least one electronic tag scanning device configured to retrieve
environmental-data stored in electronic tags associated with items in an
environment wherein said at least one electronic tag scanning device is one of (a)
adapted to be mounted on said body, (b) adapted to be attached to said body and
(c) adapted to be carried by said body; and
memory for storing at least one of said sensor-data and said
environmental-data and wherein said memory is at least one of a volatile memory
and a non-volatile memory.
2. A body and environment monitoring system as in claim 1, wherein
said environmental-data is at least one member from the group consisting of: (1)
EMI Code; (2) item identification number; (3) item model number; (4) warning
code; (5) room code; (6) floor code; (7) building code; (8) vehicle code; (9) meal
code and (10) nutrition code.
3. A body and environment monitoring system as in claim 1, wherein
said first computer is configured to generate at least one of therapeutic treatment-
signals and pharmaceutical treatment-signals when a monitored body-parameter
meets predefined treatment-criteria.
4. A body and environment monitoring system as in claim 3,
wherein said at least one electronic tag scanning device is further
configured to communicate with said first computer and to transfer at least part of
said environmental-data to said first computer; and
wherein said first computer is further configured to automatically
determine the proper treatment-signal format using at least part of said
environmental-data received from an electronic tag associated with a treatment-
control system.

5. A body and environment monitoring system as in claim 1, wherein said first computer is configured to:

communicate with said at least one electronic tag scanning device;
monitor said environmental-data and compare said environmental-

5 data to predefined warning-criteria;

issue a warning message when monitored environmental-data meets predefined warning-criteria; and

wherein said warning message is issued to a local electronic device.

6. A body and environment monitoring system as in claim 5, wherein said first computer is configured to communicate with a remote computer and wherein said warning message is transmitted to said remote computer over at least one of a wired or wireless communications link.

7. A body and environment monitoring system as in claim 6, further comprising a display and wherein said warning message is at least one member from the group consisting of: (1) warning specific beep; (2) audio voice message; (3) flashing light; (3) message displayed on said display; (4) a tactile signal; (5) a
5 mechanical vibration; and (4) message printed in Braille.

8. A body and environment monitoring system as in claim 7, wherein said first computer is further configured to accumulate reference data.

9. A body and environment monitoring system as in claim 8, wherein said display is configured to display at least one of said sensor-data, said environmental-data, said warning criteria and said reference data.

10. A body and environment monitoring system as in claim 1, wherein said first computer is configured to:

communicate with said at least one electronic tag scanning device;
communicate with a remote computer;

5 monitor said environmental-data and compare said environmental-data to predefined BREM-alert-criteria;

issue a BREM-alert when monitored environmental-data meets predefined BREM-alert-criteria; and

10 wherein said BREM-alert is issued to at least one of a local electronic device and a remote computer.

11. A body and environment monitoring system as in claim 10, wherein said first computer issues a timed warning message informing a user of a pending BREM-alert transmission and providing said user the opportunity to cancel said BREM-alert transmission.

12. A body and environment monitoring system as in claim 1, wherein a warning message is issued when environmental-data is detected by said least one electronic tag scanning device that meets predefined warning-criteria.

13. A body and environment monitoring system as in claim 12, further comprising a display configured to display at least one of said sensor-data, processed sensor-data, said environmental-data, processed environmental-data, said predefined warning-criteria and said warning message.

14. A body and environment monitoring system as in claim 13, wherein said warning message is at least one member from the group consisting of: (1) warning specific beep; (2) audio message; (3) flashing light; (3) message displayed on said display; and (4) message printed in Braille.

15. A body and environment monitoring system as in claim 1, wherein said body is a human body.

16. A body and environment monitoring system as in claim 15, wherein said at least one body-parameter is at least one member from the group consisting of: (1) body temperature; (2) blood pressure; (3) heart rate; (4) blood sugar level; (5) blood oxygen level; (6) cholesterol level; (7) respiration rate; (8) hormone level; (9) galvanic skin response; (10) EMG; (11) EEG; (12) EOG; (13) body fat; (14) hydration level (15) activity level; (16) body position; (17) UV radiation exposure; and (18) UV radiation absorption.

17. A body and environment monitoring system as in claim 1, wherein said at least one electronic tag scanning device is an RFID STR device and wherein said electronic tag is an RFID smart tag.

18. A body and environment monitoring system as in claim 17, wherein said RFID STR device is configured to listen for RFID smart tag signals and to transmit a RFID smart tag trigger signal when no RFID smart tag signals are detected.

19. A body and environment monitoring system as in claim 18, further comprising a display configured to display information received from at least one of said first computer and said RFID STR device.

20. A body and environment monitoring system as in claim 19, wherein said display is further configured to display at least part of said sensor-data, wherein said sensor-data is at least one of real-time, near real-time data, processed sensor-data and unprocessed sensor-data.

21. A body and environment monitoring system as in claim 1, wherein said first computer is in wireless communication with a remote computer and wherein said remote computer is connected to at least one of a local area network and a wide area network.

22. A monitoring system comprising:

at least one electronic tag scanning device configured to transmit an electronic tag trigger signal and to receive electronic tag transmissions;

5 a first computer in communication with at least one electronic tag scanning device and configured to use said at least one electronic tag scanning device to retrieve environmental-data stored in electronic tags associated with items within an environment;

memory in communication with said first computer wherein said memory is at least one of a volatile memory and a non-volatile memory;

10 wherein said first computer stores retrieved environmental-data in said memory;

wherein said first computer is further configured to use said at least one electronic tag scanning device to transmit an electronic tag trigger signal when a predefined amount of time elapses without a valid electronic tag transmission being received containing valid environmental-data; and

15 wherein said first computer and said at least one electronic tag scanning device is at least one of (a) mounted on a body, (b) attached to a body, and (c) carried by a body.

23. A monitoring system as in claim 22, wherein said at least one electronic tag scanning device is an RFID STR device and wherein said electronic tag is an RFID smart tag.

24. A monitoring system as in claim 23, wherein said environmental-data is at least one member from the group consisting of: (1) EMI Code; (2) item identification number; (3) item model number; (4) warning code; (5) room code; (6) floor code; (7) building code; (8) vehicle code; (9) meal code and (10) nutrition code.

25. A monitoring system as in claim 22, wherein said first computer is in communication with a remote computer.

26. A monitoring system as in claim 25, wherein said first computer is further configured to use said at least one electronic tag scanning device to transmit an electronic tag trigger signal according to transmit-criteria where said transmit-criteria is at least one member from the group consisting of: (1) periodically at set intervals; (2) periodically at random intervals; (3) upon manual request by a user; and (4) automatic request issued by said remote computer.

27. A monitoring system as in claim 22, wherein said first computer issues a warning message when retrieved environmental-data meets predefined warning-criteria.

28. A monitoring system as in claim 27, wherein said first computer is further configured to communicate with a remote computer and wherein said warning message is transmitted to said remote computer.

29. A monitoring system as in claim 27, further comprising a display in communication with said first computer and configured to display at least one of said environmental data and said warning message.

30. A monitoring system as in claim 29, wherein said display is at least one member from the group consisting of: (a) a display associated with a personal digital assistant; (b) LCD display associated with a watch; (c) a segmented display associated with a watch; (d) an LCD display associates with said first computer; (e) video-enabled glasses; (f) video-enabled goggles; (g) video-enabled helmets; (h) video-enabled room; and (i) video-enabled transparent surface.

31. A monitoring system as in claim 22, further comprising at least one bio-sensor associated with a body and configured to generate sensor-data for at least one body-parameter; and

wherein said first computer is in communication with said at least one bio-sensor and configured to retrieve sensor-data from said at least one bio-sensor and to store said sensor-data in said memory.

32. A monitoring system as in claim 31, wherein said first computer is configured to automatically transmit treatment-signals when a monitored body-parameter meets predefined treatment-criteria.

33. A monitoring system as in claim 32, wherein said first computer is further configured to automatically format said treatment-signals based on environmental-data retrieved from electronic tags associated with a treatment control system near said body.

34. A monitoring system as in claim 33, wherein said first computer is further configured to accumulate reference data and wherein said display is further configured to display at least one of said reference data, said environmental-data, real-time sensor-data, near real-time sensor-data, processed sensor-data and unprocessed sensor-data.

35. A body and environment monitoring system as in claim 34, wherein said sensor data is transmitted to a remote computer.

36. A body monitoring system comprising:

at least one bio-sensor associated with a body and configured to generate sensor-data for at least one body-parameter;

a first computer associated with said body and configured to retrieve sensor-data from said at least one bio-sensor;

a memory in communication with said first computer wherein said memory is configured to store sensor-data;

said first computer further configured to generate treatment-signals and to transmit said treatment-signals to a treatment control system when said first computer determines that a body-parameter meets predefined treatment criteria; and

said first computer further configured to automatically determine the proper treatment-signal format wherein said act of determining is based at least in part on treatment-control-system-information retrieved from said treatment control system.

37. A body and environment monitoring system comprising:
 at least one bio-sensor associated with a body and configured to generate
 sensor-data for at least one body-parameter;
 at least one electronic tag scanning device associated with said body and
 5 configured to receive electronic tag transmissions comprising environmental-data.
 a first computer associated with said body and in communication with said
 at least one bio-sensor and said at least one electronic tag scanning device;
 said first computer configured to receive said sensor-data and said
 environmental-data; and
 10 a memory in communication with said first computer wherein said memory
 is configured to store said sensor-data and said environmental-data.

38. A body monitoring system as in claim 37, said first computer further
 configured to generate treatment-signals and to transmit said treatment-signals to
 a treatment control system when said first computer determines that a body-
 parameter meets predefined treatment-criteria; and
 5 said first computer further configured to automatically determine the proper
 treatment-signal format based at least in part on at least one of said
 environmental-data and treatment-control-system-information retrieved from said
 treatment control system.

39. A body monitoring system as in claim 38, wherein said treatment
 control system is at least one of a pharmaceutical treatment control system and a
 therapeutic treatment control system.

40. A body monitoring system as in claim 39, wherein said treatment-
 signal is transmitted over at least one of a wired or wireless communication link.

41. A body monitoring system as in claim 37, wherein said at least one
 electronic tag scanning device is an RFID STR device and wherein said electronic
 tag is an RFID smart tag.

42. A body and environment monitoring system comprising:
 at least one bio-sensor associated with a body and configured to generate
 sensor-data related to at least one body-parameter;
 at least one electronic tag scanning device associated with said body and
 5 configured to receive electronic tag transmissions comprising environmental-data.

a first computer associated with said body and configured to retrieve said sensor-data from said at least one bio-sensor and said environmental-data from said at least one electronic tag scanning device;

a memory for storing said bio-sensor data and said environmental-data;

10 wherein the combination of said first computer said at least one bio-sensor and at least one electronic tag scanning device comprise a body-monitor;

a first network operating in accordance with a predetermined protocol;

a second network comprising a plurality of said body-monitor devices;

15 a gateway operatively coupled to said first network and to said second network; and

an HTTP server embedded in one of said gateway and said plurality of body-monitor devices.

43. A body and environment monitoring system as in claim 42, wherein said at least one electronic tag scanning device is further configured to transmit a trigger signal if no electronic tag transmissions are received during a predetermined amount of time.

44. A body and environment monitoring system 42, where in said at least one electronic tag scanning device is an RFID STR device.

45. A body and environment monitoring system 44, wherein said first computer is further configured to:

issue a warning message when said environmental-data meets predefined warning-criteria; and

5 issue a BREM-alert when said environmental-data meets predefined BREM-alert-criteria.

46. A body and environment monitoring system 45, further comprising a display wherein said display is configured to display at least one of said sensor-data, said environmental-data, said warning message and said BREM-alert.

47. A method of tracking environmental-data comprising the steps of: configuring an electronic tag scanning device to listen for electronic tag transmissions;

5 transmitting a trigger signal when no electronic-tag transmissions are received during a predefined period of time; and

storing received environmental-data in timed stamped memory.

48. A method of tracking environmental-data as in claim 47, further comprising the step of transmitting an electronic tag trigger signal according to predefined transmit-criteria.

49. A method of tracking environmental-data as in claim 47, wherein said electronic tag scanning device is an RFID STR device and said electronic tag is an RFID smart tag.

50. A method of tracking environmental-data as in claim 47, wherein the step of storing received environmental-data further comprises classifying the stored environmental-data as untracked data and pending evaluation.

51. A method of tracking environmental-data as in claim 50, further comprising the steps of evaluating environmental-data classified as pending evaluation to determine if said environmental-data should be reclassified as tracked data.

52. A method of tracking environmental-data as in claim 47, further comprising the step of executing an Item-Warning routine.

53. A method of tracking environmental-data as in claim 47, further comprising the step of executing a BREM-alert routine.

54. A method of warning a user of a item in an user's environment comprising the steps of:

obtaining environmental-data from electronic tags associated with items in a user environment;

5 accessing predefined warning-criteria; and

comparing at least part of said environmental-data to said predefined warning-criteria and issuing a warning message when said environmental-data meets a condition set by said warning-criteria.

55. A method of warning a user of an item in a user's environment as in claim 54, wherein said warning message is at least one member from the group consisting of: (1) a beep; (2) an voice message; (3) a flashing light; (4) a message displayed on a display; and (5) a message printed in Braille.

56. A method of warning a user of an item in a user's environment as in claim 55, wherein said warning message includes at least one member from the

group consisting of: (1) a description of the item; (2) the location of the item; and (3) a description of the warning.

57. A method of warning a user of an item in a user's environment as in claim 56, further including the step of recording at least one of: (1) the location of the item; (2) at least part of the environmental-data associated with the item; (3) the warning message; and (4) the warning-criteria condition that trigger issuing of the warning message.

58. A method of detecting an alert condition comprising the steps of:
obtaining environmental-data from electronic tags associated with items in a user environment;

accessing predefined BREM-alert-criteria;

comparing at least part of said environmental-data to said predefined BREM-alert-criteria;

notifying a user of an pending BREM-alert transmission when said environmental-data meets a condition set by said BREM-alert-criteria and giving the user the opportunity to abort said BREM-alert transmission; and

transmitting the BREM-alert to a predefined entity if said user does not abort said BREM-alert transmission.